



Hubble Space Telescope: A Sample NASA Space Science Mission

Jupiter and its Great Red Spot,
as imaged by Hubble's Wide Field
Planetary Camera 2 on April 9, 2007.

The Hubble Space Telescope (HST) was launched into Earth orbit from Space Shuttle Discovery on April 24, 1990, carrying five instruments to view the universe from above the Earth's atmosphere. Since then, Hubble has captured the imagination of millions, as (1) astronauts have meticulously serviced the HST, fixing an initial flaw and replacing or updating various components, and (2) an amazing stream of stunning images has been created from the Hubble data. The scientific results have also been stunning, for instance, narrowing the estimated age of the universe to 13-14 billion years, helping to clarify the evolution of galaxies, and providing data that assisted in the discovery of dark energy.

The Majestic Sombrero Galaxy (M104), an
estimated 50,000 light-years across and 28 million
light-years from Earth, as imaged by Hubble's
Advanced Camera for Surveys in May-June 2003.

The Eagle Nebula (M16), consisting
largely of molecular hydrogen gas and
dust, as imaged on April 1, 1995 with
Hubble's Wide Field Planetary Camera 2.

Spiral galaxy UGC 1810, the main
galaxy in a 'rose' of galaxies imaged
by Hubble's Wide Field Camera 3 on
December 17, 2010.

Some of the Women of Goddard Involved in the Hubble Mission



JENNIFER WISEMAN
ASTROPHYSICIST

Is the Senior Project Scientist for the Hubble Space Telescope and uses Hubble data to delve into the earliest stages of star formation and to examine how galaxies, stars, and planets evolve over time. Before coming to Goddard, she was the Program Scientist for Hubble at NASA Headquarters.



NZINGA TEMPLE TULL
CHIEF SYSTEMS ENGINEER

Joined the Hubble team as an electrical power subsystem engineer in 1998 and led the power subsystem planning shift during Servicing Mission 3B, when the solar arrays and power control unit were replaced. She is now on the Hubble engineering systems management team.



LISA MAZZUCA
ASTROPHYSICIST

Is one of Hubble's two instrument managers and on-call Mission Operations Managers. She was heavily involved in the Servicing Mission 4 Program, when astronauts serviced the Hubble from the Space Shuttle, and she led the successful Servicing Mission Operations Integration and Ground Testing Program.



Photo by Jay Friedlander

ANNE KINNEY
ASTROPHYSICIST

Was the Instrument Scientist for one of Hubble's original instruments, the Faint Object Spectrograph. She then oversaw the Hubble as Astrophysics Division Director at NASA Headquarters, prior to coming to Goddard, where she is now the Director of the Solar System Exploration Division.



OLIVIA LUPE
ASTRONOMER, OPERATIONS MANAGER

Joined the Hubble team at the Space Telescope Science Institute in 1983, coming to Goddard two decades later to experience a Servicing Mission (SM4) from the front lines of HST Operations. She serves as an Instrument Operations Manager and has led the HST Life Extension program.



MEGAN MEEHAN
SYSTEMS ENGINEER

Supported the fifth and final Hubble Servicing Mission as a mechanical systems engineer for the Orbital Replacement Unit Carrier. She was responsible for ensuring the fit, form, and function of roughly a third of the Shuttle payload for the flight to Hubble.

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Photo by Jay Friedlander

MICHELLE THALLER
ASTRONOMER & OUTREACH SPECIALIST

Has enthusiastically described Hubble's science and results to audiences ranging from small groups visiting Goddard to national and international audiences watching the History, Discovery, and National Geographic channels. She is Goddard's Assistant Director of Science for Communication.



AMBER STRAUGHN
ASTROPHYSICIST

Uses data from Hubble to study star formation in distant galaxies and to sort out how and why galaxies change over time. This includes using spectroscopic data from Hubble's Wide Field Camera 3, installed in 2009, to see in amazing new detail how distant galaxies form their stars.



Photo by Jay Friedlander

AMY SIMON-MILLER
PLANETARY SCIENTIST

Uses Hubble data for her studies of the atmospheres of the solar system's giant planets, including their clouds, storms, and winds, and spectacular comet crashes into Jupiter. She is currently Goddard's Associate Director of Solar System Exploration.



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